

FIG. 1

200 USER

50 USER TERMINAL

1 PLAYER

210 SYSTEM ADMINISTRATION COMPANY

211 ADMINISTRATION CENTER

212 STORE

220 FINANCE ORGANIZATION

230 VIRTUAL STORE

240 CONTENT PROVIDER

FIG. 2

2 ANALOG OUTPUT TERMINAL

3 PC INTERFACE TERMINAL

4 STORAGE MEDIUM I/O TERMINAL

5 BATTERY

6 INPUT KEY

7 DISPLAY DEVICE

14 PASSWORD

16 CONTROLLER

17 ROM

18 TIMER

20 PUBLIC-KEY ENCODING/DECODING CIRCUIT

21 COMMUNICATION-KEY STORAGE MEMORY

22 COMMON-KEY STORAGE MEMORY
23 USER ID
24 COMMON-KEY ENCODING/DECODING CIRCUIT
25 BUFFER
25 HASH FUNCTION CIRCUIT
26 CONTENT DECOMPRESSING CIRCUIT
27 D/A CONVERTING CIRCUIT
28 POINT INFORMATION (BALANCE)
29 POINT USAGE INFORMATION (COPYRIGHT HOLDER)

FIG. 3

100 CONTENT ADMINISTRATION FUNCTION
101 CONTROL FUNCTION
102 DATABASE, CONTENT ID, CONTENT KEY, USE CONDITION,
COPYRIGHT HOLDER
103 CONTENT KEY AND ID GENERATING FUNCTION
104 CONTENT ENCODING AND COMPRESSING FUNCTION
105 CONTENT DISPLAY FUNCTION
110 USER ADMINISTRATION FUNCTION
111 CONTROL FUNCTION
112 DATABASE, USER ID, USER PERSONAL INFORMATION, USER
SETTLEMENT INFORMATION, INFORMATION TRANSFER HISTORY, USER
PLAYER-UNIQUE KEY, SECURITY-ASSOCIATED DATA, PUBLIC KEY
SEND POINT, OTHERS.

113 POINT GENERATING FUNCTION
114 COMMUNICATION STATEMENT ENCODING/DECODING FUNCTION
115 CONFIRMATION MESSAGE GENERATING FUNCTION
116 SECURITY ID GENERATING FUNCTION
117 SETTLEMENT BILLING FUNCTION
118 USER SUBSCRIPTION PROCESSING FUNCTION
120 USAGE INFORMATION ADMINISTRATION FUNCTION
121 CONTROL FUNCTION
122 DATABASE, COPYRIGHT HOLDER, CONSUMED POINT COUNT,
OTHERS.
123 USAGE INFORMATION COMPUTING FUNCTION
130 ADMINISTRATION FUNCTION
131 CONTROL FUNCTION
132 COMMUNICATION WITH FINANCE ORGANIZATION
133 COMMUNICATION WITH USER TERMINAL
134 COMMUNICATION WITH PROPRIETOR AND OTHERS

FIG. 4

200 USER

50 USER TERMINAL

1 PLAYER

210 SYSTEM ADMINISTRATION COMPANY

211 ADMINISTRATION CENTER

212 STORE

220 FINANCE ORGANIZATION

(1) PERSONAL INFORMATION/FEE

(5) SELLS PLAYER

(2) REGISTER PERSONAL INFORMATION AND PLAYER-UNIQUE NUMBER
(KEY)

(3) CONFIRM ACCOUNT NUMBER AND CREDIT NUMBER

(4) INFORMATION INDICATING THAT ACCOUNT CAN BE OPENED WITH
USER

FIG. 5

200 USER

50 USER TERMINAL

1 PLAYER

210 SYSTEM ADMINISTRATION COMPANY

211 ADMINISTRATION CENTER

230 VIRTUAL STORE

240 CONTENT PROVIDER

(1) CONTENT SEARCH, SELECT, EDIT AND ORDER

(6) SUPPLY CONTENT

(2) REQUEST FOR CONTENT SUPPLY

(5) SUPPLY MANIPULATED CONTENT

(3) REQUEST FOR CONTENT SUPPLY

(4) SUPPLY CONTENT

FIG. 6

200 USER

50 USER TERMINAL

1 PLAYER

210 SYSTEM ADMINISTRATION COMPANY

211 ADMINISTRATION CENTER

220 FINANCE ORGANIZATION

240 CONTENT PROVIDER

(1) ENCODED POINT REPLENISH REQUEST AND USED POINT
COPYRIGHT HOLDER INFORMATION

(5) ENCODED POINT REPLENISH INSTRUCTION

(3) SETTLEMENT OK INSTRUCTION

(2) CONFIRM SETTLEMENT OF REPLENISHED POINT

(4) NOTIFY COPYRIGHT HOLDER OF POINT COUNT

FIG. 7

200 USER

50 USER TERMINAL

1 PLAYER

210 SYSTEM ADMINISTRATION COMPANY

211 ADMINISTRATION CENTER

220 FINANCE ORGANIZATION

230 VIRTUAL STORE

240 CONTENT PROVIDER

- (1) REQUEST FOR PAYING FEE
- (2) PAY FEE
- (3) SEND FEE
- (4) PAY COPYRIGHT FEE ACCORDING TO POINT
- (5) PAY STORE COMMISSION

FIG. 8

START

ST1 WAIT FOR STARTING SOFTWARE OF USER TERMINAL FOR POINT PURCHASING.

ST2 RECEIVE INFORMATION INPUTTED IN USER TERMINAL.

ST3 COMPARE WITH BUILT-IN PASSWORD AND CONFIRM.

ST4 GENERATE SECURITY ID, PURPOSE OF POINT PURCHASE, AND POINT COUNT TO BE PURCHASED.

ST5 REQUEST FOR POINT AND ENCODE POINT USAGE INFORMATION.

ST6 ATTACH USER ID.

ST7 TRANSFER THE GENERATED DATA TO USER TERMINAL.

ST8 RECEIVE DATA FROM ADMINISTRATION CENTER THROUGH USER TERMINAL.

ST9 DECODE THE DATA.

ST10 CHECK SECURITY ID.

ST11 CORRECT THE POINT.

ST12 GENERATE SIGN INDICATING PROCESSING COMPLETION AND ENCODE THE GENERATED SIGN.

ST13 TRANSFER THE ENCODED SIGN TO USER TERMINAL.

END

PROCESSING FLOW IN PLAYER AT PURCHASING POINT

FIG. 9

START

ST21 START SOFTWARE FOR POINT PURCHASING.

ST22 TRANSFER INPUT INFORMATION SUCH AS PASSWORD AND POINT
COUNT TO BE PURCHASED.

ST23 RECEIVE DATA GENERATED BY PLAYER.

ST24 TRANSFER THE DATA COMING FROM PLAYER TO ADDRESS OF
ADMINISTRATION CENTER.

ST25 TRANSFER DATA TO BE SENT FROM ADMINISTRATION CENTER TO
PLAYER TO PLAYER DIRECTLY.

ST26 RECEIVE SIGN INDICATING PROCESSING COMPLETION FROM
PLAYER.

ST27 DISPLAY AND CONFIRM THE SIGN.

ST28 TRANSFER CRYPTOGRAPH OF THE SIGN TO ADMINISTRATION
CENTER.

END

PROCESSING FLOW IN USER TERMINAL AT POINT PURCHASING

FIG. 10

START

ST31 RECEIVE DATA FROM USER TERMINAL.

ST32 BASED ON USER ID, OBTAIN COMMON KEY AND SECURITY ID FROM DATABASE.

ST33 DECODE THE CRYPTOGRAPH AND CHECK VALIDITY AND CONTENTS.

ST34 ISSUE POINT AND PREPARE BILLING FOR USER SETTLEMENT ORGANIZATION.

ST35 FROM POINT BALANCE AND POINT USAGE INFORMATION, CONFIRM THAT THERE IS NO ILLEGALITY AND REORGANIZE THE INFORMATION.

ST36 COMPUTE SECURITY ID AND ENCODE THE SAME ALONG WITH POINT INFORMATION.

ST37 TRANSFER DATA TO PLAYER THROUGH USER TERMINAL.

ST38 RECEIVE SIGN INDICATING PROCESSING COMPLETION.

ST39 BASED ON THE SIGN, REQUEST SETTLEMENT.

END

PROCESSING FLOW IN ADMINISTRATION CENTER AT POINT PURCHASING

FIG. 11

PLAYER	USER TERMINAL	ADMINISTRATION CENTER
TRANSFER INPUT INFORMATION T1		
TRANSFER CREATED DATA T2		
		TRANSFER DATA T3

TRANSFER WITHOUT CHANGE T5 TRANSFER DATA T4
TRANSFER SIGN T6
TRANSFER SIGN CRYPTOGRAPH T7
SEQUENCE AT POINT PURCHASING

FIG. 12

START

ST41 WAIT FOR STARTING SOFTWARE OF USER TERMINAL FOR
OBTAINING CONTENT.

ST42 RECEIVE CONTENT (RECEIVE ENCODED CONTENT AND CONTENT
ID).

ST43 STORE THE RECEIVED CONTENT INTO STORAGE MEDIUM.

END

PROCESSING FLOW IN PLAYER AT OBTAINING CONTENT

FIG. 13

START

ST51 START SOFTWARE FOR OBTAINING CONTENT.

ST52 ACCESS ADMINISTRATION CENTER.

ST53 SPECIFY DESIRED CONTENT.

ST54 TRANSMIT CONTENT SPECIFYING INFORMATION.

ST55 RECEIVE THE CONTENT FROM ADMINISTRATION CENTER (
RECEIVE THE ENCODED CONTENT AND CONTENT ID).

ST56 STORE THE RECEIVED CONTENT.

ST57 TRANSFER THE CONTENT TO PLAYER (TRANSMIT THE ENCODED
CONTENT AND CONTENT ID).

END

PROCESSING FLOW IN USER TERMINAL AT OBTAINING CONTENT

FIG. 14

START

ST61 RECEIVE THE CONTENT SPECIFYING INFORMATION FROM USER
TERMINAL.

ST62 TRANSMIT THE CONTENT TO USER TERMINAL (TRANSMIT THE
ENCODED CONTENT AND CONTENT ID).

END

PROCESSING FLOW IN ADMINISTRATION CENTER AT OBTAINING
CONTENT

FIG. 15

PLAYER USER TERMINAL ADMINISTRATION CENTER

TRANSFER CONTENT SPECIFYING INFORMATION T11

TRANSFER CONTENT T12

TRANSFER CONTENT T13

SEQUENCE AT OBTAINING CONTENT

FIG. 16

START

ST71 START SOFTWARE OF USER TERMINAL FOR OBTAINING CONTENT
KEY.

ST72 RECEIVE CONTENT SPECIFYING INFORMATION FROM USER
TERMINAL.

ST73 GENERATE ID OF SPECIFIED CONTENT, USER ID, ENCODED
MESSAGE, AND SECURITY ID.

ST74 TRANSFER GENERATED DATA TO USER TERMINAL.

ST75 RECEIVE ENCODED DATA COMING FROM ADMINISTRATION CENTER
THROUGH USER TERMINAL.

ST76 DECODE THE DATA AND CHECK VALIDITY.

ST77 STORE THE DECODED DATA INTO COMMON-KEY STORAGE MEMORY
ALONG WITH CONTENT ID.

ST78 GENERATE MESSAGE INDICATING THAT THE KEY HAS BEEN
OBTAINED AND ENCODES THE MESSAGE.

ST79 TRANSMIT THE ENCODED MESSAGE TO USER TERMINAL.

END

PROCESSING FLOW IN PLAYER AT OBTAINING CONTENT KEY.

FIG. 17

START

ST81 START SOFTWARE FOR OBTAINING CONTENT KEY.

ST82 GENERATE INFORMATION FOR SPECIFYING DESIRED CONTENT.

ST83 TRANSMIT THE CONTENT SPECIFYING INFORMATION TO PLAYER.

ST84 RECEIVE DATA GENERATED IN PLAYER.

ST85 TRANSFER DATA COMING FROM PLAYER TO ADDRESS OF
ADMINISTRATION CENTER.
ST86 RECEIVE ENCODED DATA COMING FROM ADMINISTRATION
CENTER.
ST87 TRANSFER THE ENCODED DATA COMING FROM ADMINISTRATION
CENTER TO PLAYER.
ST88 RECEIVE MESSAGE FROM PLAYER.
ST89 DISPLAY THAT THE KEY HAS BEEN OBTAINED.
ST90 SEND ENCODED DATA TO ADMINISTRATION CENTER.
END
PROCESSING FLOW IN USER TERMINAL AT OBTAINING CONTENT KEY
AND USE CONDITION

FIG. 18

START
ST91 RECEIVE DATA GENERATED BY PLAYER AND TRANSMITTED
THROUGH USER TERMINAL.
ST92 DECODE THE RECEIVED DATA AND CHECK VALIDITY.
ST93 ENCODE CONTENT KEY SPECIFIED BY CONTENT ID, USE
CONDITION, AND SECURITY ID.
ST94 SEND THE ENCODED DATA TO PLAYER THROUGH USER TERMINAL.
ST95 RECEIVE THE ENCODED DATA FROM USER TERMINAL.
ST96 CONFIRM THAT THE CONTENT KEY HAS BEEN OBTAINED.
END

PROCESSING FLOW IN ADMINISTRATION CENTER AT OBTAINING
CONTENT KEY AND USE CONDITION

FIG. 19

PLAYER	USER TERMINAL	ADMINISTRATION CENTER
TRANSFER CONTENT SPECIFYING INFORMATION T21		
TRANSFER GENERATED DATA T22		
TRANSFER GENERATED DATA T23		
SEND ENCODED DATA T25	SEND ENCODED DATA T24	
TRANSFER MESSAGE T26		
SEND ENCODED DATA T27		
SEQUENCE OF OBTAINING CONTENT KEY AND USE CONDITION		

FIG. 20

START

ST101 SPECIFY DESIRED CONTENT FOR STORAGE MEDIUM.

ST102 ACCESS STORAGE MEDIUM TO READ ID OF THE DESIRED
CONTENT.

ST103 CHECK FOR CONTENT KEY AND USE CONDITION.

ST104 DECODE ENCODED CONTENT KEY AND USE CONDITION.

ST105 BASED ON THE DECODED USE CONDITION, CHECK BALANCE OF
POINT.

ST106 DECREMENT SPECIFIED POINT AND WRITE NEW PROPRIETOR OF
THE DECREMENTED POINT TO POINT USAGE INFORMATION ALONG WITH

POINT COUNT AND OTHER INFORMATION.

ST107 CONFIRM COMPLETION OF BILLING PROCESSING.

ST108 READ THE CONTENT FROM STORAGE MEDIUM.

ST109 TRANSFER THE CONTENT TO COMMON-KEY ENCODING/DECODING
CIRCUIT.

ST110 USING THE DECODED CONTENT KEY, DECODE THE CONTENT.

ST111 DECOMPRESS THE DECODED CONTENT.

ST112 PERFORM D/A CONVERSION.

ST113 OUTPUT.

END

PROCESSING FLOW IN PLAYER AT VIEWING CONTENT

FIG. 21

START

ST121 WAIT FOR STARTING SOFTWARE OF USER TERMINAL FOR
RETURNING USAGE INFORMATION.

ST122 RECEIVE INPUT INFORMATION SUCH AS PASSWORD INPUTTED
IN USER TERMINAL.

ST123 COMPARE WITH BUILT-IN PASSWORD AND CONFIRM.

ST124 ENCODE POINT BALANCE AND POINT USAGE INFORMATION.

ST125 ATTACH USER ID.

ST126 TRANSFER GENERATED DATA TO USER TERMINAL.

ST127 RECEIVE THE DATA COMING FROM ADMINISTRATION CENTER
THROUGH USER TERMINAL.

ST128 CHECK SECURITY ID.

ST129 CHECK MESSAGE INDICATING COMPLETION OF PROCESSING.

END

PROCESSING FLOW IN PLAYER AT RETURNING USAGE INFORMATION

FIG. 22

START

ST131 START SOFTWARE FOR RETURNING USAGE INFORMATION.

ST132 TRANSFER INPUT INFORMATION SUCH AS PASSWORD TO
PLAYER.

ST133 RECEIVE DATA GENERATED BY PLAYER.

ST134 TRANSFER THE DATA COMING FROM PLAYER TO ADDRESS OF
ADMINISTRATION CENTER.

ST135 TRANSFER THE DATA TO BE SENT FROM ADMINISTRATION
CENTER TO PLAYER DIRECTLY TO PLAYER.

ST136 DISPLAY COMPLETION OF PROCESSING AND CONFIRM.

END

PROCESSING FLOW IN USER TERMINAL AT RETURNING USAGE
INFORMATION

FIG. 23

START

ST141 RECEIVE DATA FROM USER TERMINAL

ST142 BASED ON USER ID, OBTAIN COMMON KEY AND SECURITY ID.

ST143 DECODE CRYPTOGRAPH AND CHECK VALIDITY AND CONTENTS OF
THE DECODED DATA.

ST144 FROM POINT BALANCE AND USAGE INFORMATION, CONFIRM
THAT THERE IS NO ILLEGALITY AND REORGANIZE THE INFORMATION.

ST145 COMPUTE SECURITY ID AND ENCODE THE SAME ALONG WITH
MESSAGE INDICATING COMPLETION OF PROCESSING.

ST146 TRANSFER THE DATA TO PLAYER THROUGH USER TERMINAL.

END

PROCESSING FLOW IN ADMINISTRATION CENTER AT RETURNING USAGE
INFORMATION

FIG. 24

PLAYER	USER TERMINAL	ADMINISTRATION CENTER
TRANSFER INPUT INFORMATION T31		
TRANSFER GENERATED DATA T32		
	TRANSFER GENERATED DATA T33	
TRANSFER DATA T35		TRANSFER DATA T34
SEQUENCE OF RETURNING USAGE DATA		

FIG. 25

START

ST151 INPUT ENCODED/COMPRESSED DATA.

ST152 PERFORM BIT DIVISION.

(1cm(X,Y)BIT ENCODED/COMPRESSED DATA)

ST153 DECODE CRYPTOGRAPH
 (1cm(X,Y)BIT COMPRESSED DATA)
 ST154 DECOMPRESS.
 (1cm(X,Y)BIT DATA)
 ST155 ALL DATA PROCESSED?
 END

FIG. 26

16 CONTROLLER
 ENCODED/COMPRESSED DATA
 30 INPUT
 31 DECODE (IN UNIT OF 64 BITS)
 25 BUFFER MEMORY (1.28K BITS)
 32 DECOMPRESS (IN UNIT OF 1.28K BITS)
 33 OUTPUT DECODED/DECOMPRESSED DATA

FIG. 27

40 GENERATE UNIDIRECTIONAL FUNCTION
 41 GENERATE USER CONSTANT
 TIMER OUTPUT 43 DETERMINE RANDOM NUMBER
 RANDOM NUMBER (SECURITY ID)
 42 RANDOM NUMBER DATABASE
 44 STORE COMMUNICATION COUNT
 COMMUNICATION COUNT INFORMATION

FIG. 28

P1 MESSAGE M

P2 CALCULATE HASH VALUE

HASH VALUE (M)

P4 ENCODE SECRET KEY

P5 GENERATE RANDOM NUMBER

P6 ENCODE COMMON KEY

P7 GENERATE COMMON KEY FOR COMMUNICATION

P8 ENCODE PUBLIC KEY

PUBLIC KEY OF THE OTHER PARTY (COMMON KEY)

COMMON KEY FOR COMMUNICATION (M, OWN SECRET KEY (HASH
VALUE (M)), RANDOM NUMBER

STATEMENT TO SEND

FIG. 29

PUBLIC KEY OF THE OTHER PARTY (COMMON KEY)

COMMUNICATION COMMON KEY (M, OWN SECRET KEY (HASH
VALUE (M)), RANDOM NUMBER

RECEIVED STATEMENT

P11 DECODE SECRET KEY COMMUNICATION COMMON KEY

P13 DECODE COMMON KEY

MESSAGE M

P14 DECODE PUBLIC KEY

P17 CALCULATE HASH VALUE

	HASH VALUE (M)	HASH VALUE (M)
P19	COMPARE AND CONFIRM NO TAMPER	
P21	GENERATE RANDOM NUMBER	
P20	SET MESSAGE M TO ANOTHER FUNCTION	
P22	COMPARE RANDOM NUMBER AND CONFIRM VALIDITY	

FIG. 30

200 USER

310 CONTENT DISPLAY AND DISTRIBUTION

320 BILLING INFORMATION ADMINISTRATION

330 SYSTEM ADMINISTRATION

FIG. 31

200 USER

401 COMMUNICATION FUNCTION

402 USER SUBSCRIPTION SUPPORT FUNCTION

404 CONTENT DISTRIBUTING FUNCTION

405 COLLECTING AND DISTRIBUTING FUNCTION

403 DATABASE FUNCTION

SEND SUBSCRIPTION INTENTION T41

SEND SUBSCRIPTION NECESSARY FILE T42

SEND SUBSCRIPTION APPLICATION T43

SEND CLIENT FUNCTION T44

SEND USER INFORMATION T45

NOTIFY REGISTRATION PROCEDURE COMPLETION T46

361 COMMUNICATION FUNCTION

362 CONTENT KEY & USE CONDITION RECEIVING FUNCTION

364 CONTENT KEY & USE CONDITION ISSUING FUNCTION

365 SETTLEMENT PROCEDURE ACCEPTING FUNCTION

366 DISTRIBUTION RECEIPT FUNCTION

367 DATABASE FUNCTION

USER INFORMATION T47

FIG. 32

200 USER

361 COMMUNICATION FUNCTION

362 USE RIGHT ISSUING FUNCTION

363 CONTENT KEY & USE CONDITION RECEIPT FUNCTION

364 CONTENT KEY & USE CONDITION ISSUING FUNCTION

365 SETTLEMENT PROCEDURE ACCEPTING FUNCTION

366 DISTRIBUTION RECEIVING FUNCTION

367 DATABASE FUNCTION

SEND PURCHASE REQUEST T51

SEND NEW USE RIGHT T52

SEND RECEIPT CONFIRMATION T53

FIG. 33

341 COMMUNICATION FUNCTION

342 CONTENT OBTAINING FUNCTION

343 CONTENT DISPLAYING FUNCTION

344 SETTLEMENT FUNCTION

345 CONTENT DATABASE

 SEND CONTENT BILL T62

 SEND CONTENT T63

401 COMMUNICATION FUNCTION

402 USER SUBSCRIPTION SUPPORT FUNCTION

404 CONTENT DISTRIBUTING FUNCTION

405 COLLECTING AND DISTRIBUTING FUNCTION

403 DATABASE FUNCTION

FREELY ACCESS ANY CONTENT DISPLAYING AND DISTRIBUTING
ORGANIZATION, FREELY OBTAIN CONTENT T61

SEND CONTENT ID, USE CONDITION, AND CONTENT KEY T64

361 COMMUNICATION FUNCTION

362 USE RIGHT ISSUING FUNCTION

363 CONTENT KEY & USE CONDITION RECEIPT FUNCTION

364 CONTENT KEY & USE CONDITION ISSUING FUNCTION

365 SETTLEMENT PROCEDURE ACCEPTING FUNCTION

366 DISTRIBUTION RECEIVING FUNCTION

367 DATABASE FUNCTION

REQUEST FOR USE CONDITION AND CONTENT KEY T65

200 USER

SEND USE CONDITION AND CONTENT KEY T66

FIG. 34

401 COMMUNICATION FUNCTION

402 USER SUBSCRIPTION SUPPORT FUNCTION

404 CONTENT DISTRIBUTING FUNCTION

405 COLLECTING AND DISTRIBUTING FUNCTION

403 DATABASE FUNCTION

RECORD USER SETTLEMENT INFORMATION AND CONTENT USAGE T72

361 COMMUNICATION FUNCTION

362 USE RIGHT ISSUING FUNCTION

363 CONTENT KEY & USE CONDITION RECEIPT FUNCTION

364 CONTENT KEY & USE CONDITION ISSUING FUNCTION

365 SETTLEMENT PROCEDURE ACCEPTING FUNCTION

366 DISTRIBUTION RECEIVING FUNCTION

367 DATABASE FUNCTION

200 USER

SEND SETTLEMENT T71

SEND SETTLEMENT CONFIRMATION T73

FIG. 35

341 COMMUNICATION FUNCTION

342 CONTENT OBTAINING FUNCTION

351 CONTENT BILL GENERATING FUNCTION

352 CONTENT RECEIPT GENERATING FUNCTION

353 CONTENT DATABASE CORRESPONDING FUNCTION

343 CONTENT DISPLAYING FUNCTION
354 CONTENT DISPLAYING FUNCTION
355 CONTENT DATABASE CORRESPONDING FUNCTION
344 SETTLEMENT FUNCTION
356 RECEIPT FUNCTION
357 FINANCE ORGANIZATION CORRESPONDING FUNCTION
345 CONTENT DATABASE

FIG. 36

361 COMMUNICATION FUNCTION
362 USE RIGHT ISSUING FUNCTION
371 PURCHASE REQUEST CONFIRMING FUNCTION
372 FUNCTION TO CONFIRM DATA SUCH AS CLIENT USE BALANCE AND
USAGE RECORD
373 USE RIGHT GENERATING FUNCTION
374 USE RIGHT SENDING NOTICE GENERATING FUNCTION
375 FUNCTION TO SEND USE RIGHT AND USE RIGHT SENDING NOTICE
376 USE RIGHT RECEIPT CONFIRMING FUNCTION
377 USE RIGHT ISSUE INFORMATION STORING FUNCTION
363 CONTENT KEY & USE CONDITION RECEIPT FUNCTION
378 CONTENT KEY & USE CONDITION RECEIVING FUNCTION
379 CONTENT KEY & USE CONDITION STORING FUNCTION
364 CONTENT KEY & USE CONDITION ISSUING FUNCTION
380 CONTENT KEY & USE CONDITION OBTAIN REQUEST RECEIVING

FUNCTION

381 CONTENT KEY & USE CONDITION SEARCHING FUNCTION
382 CONTENT KEY & USE CONDITION SENDING FUNCTION
383 CONTENT KEY & USE CONDITION RECEIPT CONFIRMING FUNCTION
365 SETTLEMENT PROCEDURE ACCEPTING FUNCTION
384 CONTENT USE RECORD RECEIVING FUNCTION
385 CONTENT USE RECORD CONFIRMING FUNCTION
386 CONTENT USE RECORD STORING FUNCTION
387 SETTLEMENT PROCEDURE COMPLETION NOTICE GENERATING
FUNCTION
389 CONTENT USE RECORD SUMMARIZING FUNCTION
366 DISTRIBUTION RECEIPT FUNCTION
390 COLLECTION DATA REQUEST CONFIRMING FUNCTION
391 CONTENT USE RECORD REPORT GENERATING FUNCTION
392 USE RIGHT ISSUE INFORMATION REPORT GENERATING FUNCTION
393 REPORT RECEIVE CONFIRMATION CONFIRMING FUNCTION
367 DATABASE FUNCTION
394 USE RIGHT DATABASE FUNCTION
395 KEY & USE CONDITION DATABASE FUNCTION
396 CONTENT USE RECORD DATABASE FUNCTION
397 USE ADMINISTRATION DATABASE FUNCTION

FIG. 37

401 COMMUNICATION FUNCTION

402 USER SUBSCRIPTION SUPPORT FUNCTION

411 SUBSCRIPTION APPLICATION GENERATING AND SENDING
FUNCTION

412 COMMON KEY RECEIVING FUNCTION

413 SUBSCRIPTION APPLICATION CONFIRMING FUNCTION

414 CLIENT ID GENERATING FUNCTION

415 SUBSCRIPTION APPLICATION STORING FUNCTION

416 CLIENT FUNCTION GENERATING FUNCTION

417 REGISTRATION INFORMATION STORING FUNCTION

403 DATABASE FUNCTION

418 USER ADMINISTRATION DATABASE FUNCTION

419 CONTENT DATABASE FUNCTION

420 BILL INFORMATION ADMINISTRATION FUNCTION DATABASE
FUNCTION

421 CONTENT DISPLAYING & DISTRIBUTING FUNCTION
ADMINISTRATION DATABASE FUNCTION

404 CONTENT DISTRIBUTING FUNCTION

422 CONTENT REQUEST CONFIRMING FUNCTION

423 RAW CONTENT SEARCHING FUNCTION

424 CONTENT ID GENERATING FUNCTION

425 CONTENT KEY GENERATING FUNCTION

426 CONTENT USE CONDITION GENERATING FUNCTION

427 RAW CONTENT COMPRESSING FUNCTION

428 CONTENT MANIPULATING FUNCTION

429 CONTENT ID, KEY & USE CONDITION STORING FUNCTION
430 CONTENT SENDING FUNCTION
431 CONTENT RECEIPT CONFIRMING FUNCTION
432 CONTENT ID, KEY & USE CONDITION SENDING FUNCTION
433 CONTENT ID, KEY & USE CONDITION RECEIPT CONFIRMING
FUNCTION
405 COLLECTING AND DISTRIBUTING FUNCTION
434 COLLECT DATA REQUEST GENERATING FUNCTION
435 CONTENT USE RIGHT RECEIVING FUNCTION
436 CONTENT USE RECORD RECEIVING FUNCTION
437 RECEIVE CONFIRMATION GENERATING FUNCTION
438 USER BILLED FEE CALCULATING AND BILL GENERATING
FUNCTION
439 FUNCTION TO CALCULATE AMOUNT OF MONEY TO BE DISTRIBUTED
TO USE RIGHT GRANTING PARTY AND GENERATE PAYMENT NOTICE

FIG. 38

451 COMMUNICATION FUNCTION
452 CONTENT OBTAINING FUNCTION
461 CONTENT OBTAINING FUNCTION
462 CONTENT STORING FUNCTION
453 USE RIGHT PURCHASING FUNCTION
463 PURCHASE REQUEST GENERATING FUNCTION
464 FUNCTION TO SUMMARIZE DATA SUCH AS CLIENT USE RIGHT

BALANCE AND USE RECORD

465 USE RIGHT INSTALLING FUNCTION

457 USE RIGHT RECEIPT GENERATING FUNCTION

454 CONTENT KEY & USE CONDITION OBTAINING FUNCTION

468 CONTENT KEY & USE CONDITION OBTAIN REQUEST GENERATING
FUNCTION

469 CONTENT KEY & USE CONDITION RECEIVING FUNCTION

470 CONTENT KEY & USE CONDITION RECEIPT GENERATING FUNCTION

455 SETTLEMENT PROCEDURE FUNCTION

471 CONTENT USE RECORD SUMMARIZING FUNCTION

472 SETTLEMENT PROCEDURE COMPLETION NOTICE RECEIVING
FUNCTION

456 USER SUBSCRIPTION SUPPORT FUNCTION

473 SUBSCRIPTION APPLICATION GENERATING FUNCTION

474 CLIENT FUNCTION INSTALLING FUNCTION

475 REGISTRATION INFORMATION GENERATING FUNCTION

457 CONTENT VIEWING BILLING FUNCTION

476 CONTENT SEARCHING FUNCTION

477 USE RIGHT CONFIRMING FUNCTION

478 SIMPLIFIED VIEWING FUNCTION

479 BILLING FUNCTION

480 CONTENT DECODING FUNCTION

481 CONTENT DECOMPRESSING FUNCTION

482 CONTENT VIEWER FUNCTION

458 DATABASE FUNCTION
483 USE RIGHT DATABASE FUNCTION
484 KEY & USE CONDITION DATABASE FUNCTION
485 CONTENT USE RECORD DATABASE FUNCTION
486 USER INFORMATION DATABASE FUNCTION

FIG. 39

1 PLAYER
61 STORAGE MEDIUM

FIG. 40

62 ADAPTER
1 PLAYER
61 STORAGE MEDIUM